

CLAIMS

1. A method of screening for and/or diagnosis of hypoxia related conditions in a subject and or monitoring the effectiveness of therapy for said condition, which comprises the step of detecting and/or quantifying in a biological sample obtained from said subject an SC6 polypeptide which
 - a) comprises or consists of the amino acid sequence of SEQ ID No. 1;
 - b) is a variant having one or more amino acid substitutions, deletions, insertions or modifications relative to the amino acid sequence of SEQ ID No. 1 provided that such variant exhibits the immunological and/or transporter activity of the polypeptide with the amino acid sequence of SEQ ID No. 1; or
 - c) is a fragment of a polypeptide as defined in a) or b) above, which is at least ten amino acids long.
2. A method of screening for and/or diagnosis of hypoxia related conditions in a subject and or monitoring the effectiveness of therapy for said condition, which comprises the step of detecting and/or quantifying in a biological sample obtained from said subject the amount of an isolated or recombinant DNA nucleic acid sequence which
 - a) comprises or consists of the DNA sequence of SEQ ID No. 2, or its RNA equivalent;
 - b) is a sequence which is complementary to the sequences of a);
 - c) is a sequence which codes for the same polypeptide as the sequences of a) or b);
 - d) is a sequence which shows substantial identity with any of those of a), b) and c); or
 - e) is a sequence which codes for a variant or fragment of SEQ ID No. 1.
3. An antibody that specifically binds to an SC6 polypeptide as defined in claim 1.
4. An antibody according to claim 3 wherein the antibody is monoclonal, polyclonal, chimeric, humanised or bispecific, or is conjugated to a therapeutic moiety, second antibody or a fragment thereof, a cytotoxic agent or cytokine.
5. The method according to claim 1 wherein the polypeptide is detected and/ or quantified using an antibody as defined in claim 3 or claim 4.
6. A method of screening for agents that modulate
 - (i) the expression or activity of an SC6 polypeptide as defined in claim 1, or
 - (ii) the expression of a nucleic acid molecule as defined in claim 2, comprisingcomparing the expression or activity of said polypeptide, or the expression of said nucleic acid molecule, in the presence of a candidate agent with the expression or activity of said polypeptide, or the expression of said nucleic acid molecule, in the absence of the candidate agent or in the presence of a control agent; and
determining whether the candidate agent causes the expression or activity of said polypeptide, or the expression of said nucleic acid molecule, to change.
7. A method of screening for agents that interact with an SC6 polypeptide, said method comprising contacting said polypeptide with a candidate agent and determining whether or not the candidate agent interacts with said polypeptide.

8. The method of claim 6 wherein the expression or activity level of said polypeptide, or the expression level of said nucleic acid molecule is compared with a predetermined reference range.
9. An agent identified by the method of claims 6, 7 or 8, which inhibits or down-regulates the expression or activity of said polypeptide, or the expression of said nucleic acid molecule.
10. A method for the prophylaxis and/ or treatment of a subject suffering from a hypoxia related condition, which comprises administering to said subject a therapeutically effective amount of
 - (i) an SC6 polypeptide as defined in claim 1,
 - (ii) a nucleic acid molecule as defined in claim 2 or
 - (iii) an agent which inhibits or down-regulates the expression or activity of an SC6 polypeptide.
11. The use of
 - (i) an SC6 polypeptide as defined in claim 1,
 - (ii) a nucleic acid molecule as defined in claim 2, or
 - (iii) an agent which inhibits or down-regulates the expression or activity of an SC6 polypeptide,in the preparation of a medicament for use in the prophylaxis and/ or treatment of hypoxia related conditions.
12.
 - (i) an SC6 polypeptide as defined in claim 1,
 - (ii) a nucleic acid molecule as defined in claim 2, or
 - (iii) an agent which inhibits or down-regulates the expression or activity of an SC6 polypeptide,for use in the prophylaxis and/ or treatment of hypoxia related conditions.
13. The method according to claim 10, or the use according to claim 11 or claim 12, wherein the agent is an antibody as defined in claim 3 or claim 4.
14. The method according to claim 1, 2, 5, or 10 or the use according to claim 11 or 12 wherein the hypoxia related condition is selected from cancer, angiogenesis and angiogenesis related disorders.
15. The method or use according to claim 14 wherein the cancer is selected from cervical, colon, renal, lung, uterine, breast or pancreatic cell carcinoma, lymphoma and leukaemia.